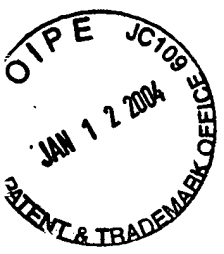
PC25050A
Information Disclosure Statement For Appln. No. 10/699,068



Certificate of Mailing (37 C.F.R. §1.8):
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s/ Rachel Potash
Rachel Potash

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
QIYUE HU, et al.

Serial No.: 10/699,068

Confirmation No.: Not yet assigend

Filed: October 30, 2003

For: HIV-INTEGRASE INHIBITORS, PHARMACEUTICAL COMPOSITIONS, AND METHODS FOR THEIR USE

Group Art Unit: Not yet assigned

Examiner: Not yet assigned

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b)

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the duty of disclosure under 37 CFR 1.56, Applicant brings the documents listed on the attached substitute Form PTO-1449 to the attention of the Examiner for consideration in connection with the examination of the above-identified application.

This Information Disclosure Statement is being filed within the period specified in 37 CFR 1.97(b)--i.e., (1) within three months of the filing date of the national application, (2) within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application, or (3) to the undersigned's knowledge, before the mailing date of a first Office Action on the merits, whichever event occurs last.

It is respectfully requested that the Examiner confirm consideration of the cited documents by initialing the attached substitute Form PTO-1449 and returning a copy of the initialed form to the Applicant.

If any fees are due in connection with the filing of this statement, including the fee set forth in 37 CFR 1.17(p) in the event that the period specified in 37 CFR 1.97(b) has elapsed, please charge all required fees to Deposit Account No. 500329.

Respectfully submitted,

Date: 7 January 2004

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PTO.SB/08A (04-03)
Approved for use through 04/30/03. OMB 0651-0031
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	Cite No. [1]	DOCUMENT NUMBER Number-Kind Code [2]	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	60/422,513	10-31-2002	Michael Bruno Plewe, et al.	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	Cite No. [1]	Foreign Patent Document Country Code [3] Number [4] Kind Code [5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T [6]
	AB	WO 02/070491	12/09/2003	Shionogi & Co., Ltd.		

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	AC	ABDEL-MAGID, A.F., et al., "Reductive Amination of Aldehydes and Ketones by Using Sodium Triacetoxyborohydride," *Tetrahedron Letters*, 1990, 5595-5598, Vol. 31, No. 39.	
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	AE	BAGSHAWE, K., "Antibody-Directed Enzyme Prodrug Therapy: A Review," *Drug Development Research*, 1995, 220-230, Vol. 34.	
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	AK	BUNDGAARD, Design of Prodrugs, 1985, Elsevier Press, New York.	
	AL	BUTLER, S.L., et al., "A quantitative assay for HIV DNA integration *in vivo*," *Nature Medicine*, May 2001, 631-634, Vol. 7, No 5.	
	AM	CAIN, M., et al., "Biomimetic Approach to Potential Benzodiazepine Agonists and Antagonists," *Heterocycles*, 1982, 1003-1007, Vol. 19, No. 6.	
	AN	CHEN, B.K., et al., "Distinct modes of human immunodeficiency virus type 1 proviral latency revealed by superinfection of nonproductively infected cell lines with recombinant luciferase-encoding viruses," *Journal of Virology*, 1994, 654-660, Vol. 68, No. 2.	
	AO	CHEN, et al., "Crystal structure of the HIV-1 integrase catalytic core and C-terminal domains: A model for viral DNA binding," *PNAS*, 2000, 8233-8238, Vol. 97, No. 15.	

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	AP	COKER, J.N., et al., "The Cyanomethylation of Indole," *Journal of Organic Chemistry*, 1963, 589-590, Vol. 28.	
	AQ	DEAR, et al., "Mass directed peak selection, an efficient method of drug metabolite identification using directly coupled liquid chromatography – mass spectrometry – nuclear magnetic resonance spectroscopy," *Journal of Chromatography B,* 2000, 281-293. Vol. 748.	
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	AX	GILCHRIST, T.L., et al., "Synthesis of Fused Pyridines under Neutral Conditions," *J.C.S. Chem. Comm.*, 1979, 627-628.	
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	AZ	GREENE, T.W., Protective Groups in Organic Chemistry,"3rd Edition, 1999, 531-537, John Wiley & Sons.	
	BA	GROBLER, J., et al., "Diketo Acid Inhibitor Mechanism and HIV-1 Integrase: Implications for Metal Binding in the Active Site of Phosphotransferase Enzymes," *PNAS*, 2002, 6661-6666, Vol. 99, No. 10.	
	BB	GUZMAN, F., et al., "Biomimetic Approach to Potential Benzodiazepine Receptor Agonists and Antagonists," *Journal of Medicinal Chemistry*, 1984, 564-570, Vol. 27.	
	BC	HANSEN, M. S., et al., "Integration complexes derived from HIV vectors for rapid assays in vitro," *Nature Biotechnology*, June 1999, 578-582, Vol. 17, No. 6.	

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	BD	HAZUDA, D., et al., "Discovery and Analysis of Inhibitors of the Human Immunodeficiency Integrase," *Drug Design and Discovery*, 1997, 17-24, Vol. 15.	
	BE	HENN, L., et al., "Formation of Indoles, Isoquinolines, and Other Fused Pyridines from Azidocrylates," *J. Chem. Soc. Perkin Trans.*, 1984, 2189-2196, Vol. 1.	
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	BK	KREHER, R. P., et al., "Cyclisierende Kondesation von 1H_Pyrrol-3,4-dicarbaldeyden mit 1,2-bifunktionellen Verbindugen [1]," *Chemiker-Zeitung*, 1984, 275-277, Vol. 108, No. 9.	
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	BM	LANE, C. F., "Sodium Cynanoborohydride – A Highly Selective Reducing Agent for Organic Functional Groups," *Synthesis*, 1975, 135-146.	
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	BP	LEWIN, S.R., et al., "Use of Real-Time PCR and Molecular Beacons to Detect Virus Replication in Human Immunodeficiency Virus Type 1-Infected Individuals on Prolonged Effective Antiretroviral Therapy," *Journal of Virology*, July 1999, 6099-6103, Vol. 73, No 7.	
	BQ	MARCH, JERRY, Advanced Organic Chemistry, 5TH Edition, 2001, 508-511, John Wiley & Sons, Inc., New York, NY.	

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	BR	MARCH, JERRY, Advanced Organic Chemistry, 5TH Edition, 2001, 911-914, John Wiley & Sons, New York, NY.	
	BS	MATAKA, S., et al., "Condensation Reaction of 3,4-Dibenzoyl-1-methyl-2,5-diphenylpyrrole and –1-phenylpyrazole with Methylamine Derivatives Affording Pyrrolo [3,4-*c*]pyridine and 2*H*-Pyrazolo[3,4-*c*]- and [4,3-*c*]pyridines," *J. Heterocyclic. Chem.*, 1981, 1073-1075, Vol. 18.	
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	BW	PROX, et al., "Rapid Structure Elucidation of Drug Metabolites by Use of Stable Isotopes," *Xenobiotica.*, 1973, 103-112, Vol. 3, No. 2.	
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	BY	ROUSSEAU, J.F., et al., "Synthesis of 3-Deaza-β-hydroxyhistidine Derivatives and Their Use for the Preparation of Substituted Pyrrolo[2,3-c]pyridine-5-carboxylates via the Pictet-Spengler Reaction," *Journal of Organic Chemistry*, 1998, 2731-2737, Vol. 63.	
	BZ	SAYASITH, K., et al., "Targeting HIV-1 Integrase," *Expert Opinion Ther. Targets*, 2001, 443-464, Vol. 5, No.4.	
	CA	SHAFIEE, A., et al., "Synthesis of 2-Aryl-6-carbethoxythiazolo[4,5-c]pyridine and 7-Chloro-2-phenylthiazolo[5,4-c]pyridine [1]," *J. Heterocyclic Chem.*, 1986, 1171-1173, Vol. 23.	
	CB	SHAN, D., et al., "Prodrug Strategies Based on Intramolecular Cyclization Reactions," *Journal of Pharmaceutical Science*, 1997, 765-767, Vol. 86, No. 7.	
	CC	SINGH, S.K., et al., "Ethyl α-Amino-β,β-Diethoxypropionate, a Useful Synthon for the Preparation of 3,4-Fused Pyridine-6-Carboxylates from Aromatic Aldehydes," *Heterocycles*, 1997, 379-391, Vol. 44, No. 1.	
	CD	SOERENS, D., et al., "Study of the Pictet-Spengler Reaction in Aprotic Media: Synthesis of the β-Galactosidase Inhibitor, Pyridindolol," *Journal of. Organic Chem*istry, 1979, 535-545, Vol. 44, No. 4.	

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	CE	SPRAUL, et al., "Liquid chromatography coupled with high-field proton NMR for profiling human urine for endogenous compounds and drug metabolites," *Journal of Pharmaceutical & Biomedical Analysis*, 1992, 601-605, Vol. 10, No. 8.	
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	CG	SUNDBERG, R.J., et al., "Syntheses with N-Protected 2-Lithioindoles," *Journal of Organic Chemistry*, 1973, 3324-3330, Vol. 38, No. 19.	
	CH	TERWILLIGER, E.F., et al., "Construction and use of a replication-competent human immunodeficiency virus (HIV-1) that expresses the chloramphenicol acetryltransferase enzyme," *PNAS*, 1989, 3857-3861, Vol. 86.	
	CI	TROUT, G., et al., "Synthesis of Some Histidine Analogs and Their Effect on the Growth of a Histidine-Requiring Mutant of *Leuconostoc mesenteroides*," *Journal of Medicinal Chemistry*, 1972, 1259-1261, Vol. 15, No. 12.	
	CJ	WAI, J.S., et al., "4-Aryl-2,4-dioxobutanoic Acid Inhibitors of HIV-1 Integrase and Viral Replication in Cells," *Journal of Medicinal Chemistry*, 2000, 4923-4926, Vol. 43, No 26.	
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	CL	YOUNG, S.D., "Inhibition of HIV-1 integrase by small molecules: The potential for a new class of AIDS chemotherapeutics," *Curr. Opin. Drug Disc. & Develo*pment, 2001, 402-410, Vol. 4 No.4.	

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